

including information concerning the level of facilities-based competition.^{102/} Moreover, for all capital assets, a significant factor in Verizon's determination of asset lives is Verizon's own planned capital expenditures.^{103/} See Lacey Decl. ¶ 21.

After Verizon makes an initial determination concerning asset lives, it then applies a variety of industry benchmarks to ensure its lives are reasonable, such as comparing its asset lives to those reported by its competitors and the lives forecasted by industry studies. Lacey Decl. ¶ 22. If the lives do not benchmark, they are reassessed. Finally, Verizon's determination of depreciable lives is then scrutinized by independent auditors before they will certify their compliance with GAAP. *Id.* Only then are the lives used for Verizon's financial reports, which are certified to be accurate and must comply with all legal requirements, and which, as noted below, are also subject to independent audit.^{104/}

^{102/} When setting asset lives for copper cable, circuit equipment, and buildings, which are established on a state-specific basis, Verizon considers the level of competition and the types of markets served in the particular state. A relatively high level of facilities-based competition in a given state will tend to produce shorter asset lives, while the predominance of rural markets will tend to lengthen asset lives.

^{103/} Accordingly, the answer to the Commission's question about the relationship between the asset lives used in a company's financial reports and those on which it bases its capital spending decisions, *NPRM* ¶ 98, is that the two are closely linked: Verizon's forecasted capital expenditures are a critical factor considered by Verizon in establishing its asset lives for financial reporting purposes. To the extent that Verizon plans significant capital expenditures to replace existing equipment, that fact weighs in favor of shorter asset lives, and vice versa.

^{104/} The Commission has asked what lives are appropriate for equipment in the incumbent's network that is or soon will be obsolete. *NPRM* ¶ 99. GAAP should capture this impending obsolescence: The life should reflect the average amount of time that pieces of such equipment will remain in the network before being retired. However, little, if any, of the equipment in Verizon's networks today is at risk of immediate or near term obsolescence.

2. GAAP Lives Are Accurate and Reliable.

GAAP produces accurate and neutral asset lives. The concerns raised by the Commission that GAAP “might permit companies to adopt depreciation methods that result in excessive depreciation expense,” *NPRM* ¶ 98, or that GAAP might give incumbents too much “discretion” in setting overly short lives, *id.* ¶ 100, are unfounded. As Dr. Lacey explains, the asset lives used in financial reporting are subject to a number of safeguards that ensure their reliability, accuracy, and neutrality. Lacey Decl. ¶¶ 25-34. These checks include the requirements of GAAP itself, the independent audit process, and market forces. *Id.*

GAAP is the product of the Federal Accounting Standards Board (FASB), an independent organization that is the preeminent standard-setting body in the United States, composed of auditors, representatives from the government, academia, and private industry. Lacey Decl. ¶ 14. Since 1973, FASB has been the designated organization in the private sector for establishing standards of financial accounting and reporting governing the preparation of financial reports. *Id.* As Dr. Lacey explains, the FASB’s primary goal in designing GAAP was to satisfy the need of external users, such as government regulators, investors, creditors, employees and labor unions, for accurate and unbiased financial information. *Id.* ¶ 28. GAAP expressly requires that representations made in a company’s financial statements, including statements reflecting depreciation expense, must be based on “evenhanded, neutral, or unbiased information.”^{105/} Similarly, GAAP requires that information contained in financial statements be both “reliable” and “relevant,” which means that the data used must be verifiable and neutral,

^{105/} FASB, *Statement of Financial Accounting Concepts No. 1*, “Objectives of Financial Reporting by Business Enterprises,” at 16 ¶ 33 (1978).

with no “bias intended to attain a predetermined result or to induce a particular mode of behavior.”^{106/}

Numerous other federal agencies have found lives set pursuant to GAAP sufficiently reliable to mandate their usage in a variety of contexts. For example, the Securities and Exchange Commission (SEC) *requires* that companies use GAAP in their financial reporting.^{107/} Similarly, federal agencies typically will reimburse only those expenses (such as depreciation expense) of its contractors and grantees that are determined in accordance with GAAP.^{108/} The American Institute of Certified Public Accountants also has officially recognized GAAP as authoritative.^{109/} Against this backdrop, CLEC speculation about bias and the Commission’s suspicion that GAAP lives are somehow questionable should be dismissed.

The asset lives used in the financial statements of incumbent LECs and other public companies are subject to independent audit for compliance with GAAP’s requirements. 17 C.F.R. § 210.3-01; *see also id.* § 210.2-02(b). In addition, as a result of the Sarbanes-Oxley Act, the chief executive officer and chief financial officer of a public corporation now also must

^{106/} FASB, *Statement of Financial Accounting Concepts No. 2*, “Qualitative Characteristics of Accounting Information,” Figure 1 at 20, Glossary (1980).

^{107/} 15 U.S.C. § 78m(i); 17 C.F.R. § 210.4-01(a)(1) (“Financial statements filed with the [Securities and Exchange] Commission which are not prepared in accordance with generally accepted accounting principles will be presumed to be misleading or inaccurate . . .”).

^{108/} *See, e.g.*, 48 C.F.R. § 31.201-2(a)(3) (Department of Defense); 7 C.F.R. § 277.11(d)(2) (Department of Agriculture); 10 C.F.R. § 765.20(f) (Department of Energy); *see also* 13 C.F.R. § 124.602(d) (Small Business Administration regulation requiring GAAP-compliant financial statements to demonstrate company qualifies as a “small business”).

^{109/} *See* FASB, *Statement of Financial Accounting Standards No. 101 — Regulated Enterprises — Accounting for the Discontinuation of Application of FASB Statement No. 71* (1988) (“FASB Statement No. 101”); American Institute of Certified Public Accountants, Code of Professional Conduct, Rule 203 (effective Nov. 30, 1993)

certify that the company's financial statements fairly present the financial condition and results of the company. *See* 17 C.F.R. § 229.601. The inclusion in a company's financial statement of any false or misleading information — including inaccurate or systematically “biased” information about a company's depreciation expense — puts a company and its officers at risk of an enforcement action by the SEC, the United States Department of Justice, and state governments, and could result in both criminal and civil penalties. *See, e.g.*, 18 U.S.C. §§ 1350(c) & 1341.

The financial markets also act as a check against understating lives. *See NPRM* ¶ 100. Companies have an incentive to state the correct economic lives because using unreasonably short lives in financial reporting would increase their reported costs and result in lower reported profits and stock prices. As Dr. Lacey has explained, shorter lives produce higher expenses, lower net income, and lower asset values, all of which may serve to *lower* stock prices rather than raise them. Lacey Decl. ¶ 30. Shorter lives could also be a concern to creditors, causing them to raise the interest rates they charge the company. *Id.* Thus, a company would not have any interest in *understating* depreciation lives. *Id.* And since incumbent LECs use GAAP depreciation lives for *all* their operations and in a variety of contexts outside of UNE pricing, the possibility that their lives *might* be adopted in a UNE rate case simply would not provide an incumbent with an incentive to adopt shorter depreciation lives across the board. *Id.* ¶ 31.

There is also nothing to claims that GAAP itself systematically *requires* a conservative bias that would tend to understate lives. *See NPRM* ¶ 100. As the Lacey declaration demonstrates, this concern stems from a misunderstanding of “conservativism” and its current place in accounting principles. Lacey Decl. ¶¶ 32-34. A systematic bias toward shorter asset lives in the name of “conservativism” is directly contrary to the precepts of GAAP, which

require accuracy and neutrality above all else *Id.* ¶ 32. Although accounting bodies applied “conservatism” principles in the past, Dr. Lacey explains that in 1993, the Accounting Standards Executive Committee specifically rescinded the standard that implied that a conservative bias might be acceptable. *Id.* ¶ 33. As Dr. Lacey notes, this change was made in order to promote GAAP’s ultimate goal of unbiased and accurate financial reporting. *Id.* ¶ 34

3. GAAP Should Be Used Instead of the Commission’s Regulatory Asset Lives.

The use of lives based on GAAP is demonstrably superior to the use of regulatory lives the Commission established in the mid- to late-1990’s. As the Commission recognizes, regulatory lives set almost a decade ago, and last adjusted in 1999 (and only with respect to digital switching), cannot possibly account for all of the technological and market changes that have occurred since. *See NPRM* ¶ 101. Those lives could not have accounted for risks that were not foreseeable at the time — accounting for unforeseen changes is the very reason that GAAP lives are revisited regularly. *See Lacey Decl.* ¶ 35. The Commission’s regulatory lives precede even the passage of the Act, and thus could not have accounted for the advent of local competition, much less the explosion of wireless telecommunications and the Internet, the advent of packet switching and large-scale fiber deployment, and the marked increase in the pace of technological change generally.^{110/} As Professors Arrow, Becker, Carlton, and Solow discuss, the rate of technological change in telecommunications infrastructure, products, and services has increased rapidly in recent years. *Arrow Report* at 4-7

Thus, the Commission’s conclusion in the *Triennial Review Order* that it could not conclude whether GAAP lives or regulatory lives were preferable for UNE purposes, *Triennial*

^{110/} Indeed, GAAP recognizes that the introduction of competition supports a shift to GAAP lives in place of traditional regulatory lives. *See FASB Statement No. 101.*

Review Order ¶ 688, must be revisited. In answer to the Commission’s query in the *NPRM*, the “FCC regulatory lives” cannot possibly “reflect the competition and technology assumptions required under a forward-looking costing methodology.” *NPRM* ¶ 101. And by contrast, GAAP lives are both forward-looking and up-to-date. ^{111/}

Indeed, GAAP lives are superior to regulatory lives whether or not the “Commission retains a scorched node approach to network design.” *NPRM* ¶ 101; *see also* Lacey Decl. ¶¶ 37-38. If the Commission failed to reform TELRIC’s core assumptions, then depreciation expense, like all other costs, would have to be based on the assumptions of perfect competition and ubiquitous, instantaneous and successive technological replacement. That would require *reducing* GAAP lives to account for the substantial additional risk this approach would entail. *See* Lacey Decl. ¶ 38. GAAP lives account only for real anticipated risks, not hypothetical ones. But this counsels in favor of using GAAP as a starting place and adjusting those lives downward, not using the Commission’s outdated and overly *long* regulatory lives. Thus, no matter what TELRIC regime the Commission adopts in this proceeding, it must provide the states with

^{111/} The Commission has asked whether the level of an incumbent’s depreciation reserves are relevant. *NPRM* ¶ 99. It is not. Notwithstanding the argument of competitive LECs to the contrary, the fact that depreciation reserve levels have risen while using the Commission’s asset lives in no way suggests that those lives are forward-looking. This is the case for two main reasons. First, whether or not asset lives are forward-looking, as the average age of assets increases, both the amount of depreciation reserve and the percentage of depreciation reserve increases. Lacey Decl. ¶ 39-40. Second, a company’s depreciation reserve will grow if it changes its asset mix and begins adding new assets that have a shorter life than the older assets that are in place and continuing to be depreciated. *Id.* ¶ 40. This too is true whether asset lives are forward-looking or not. Moreover, while “actual retirement experience,” *NPRM* ¶ 99, is one of the many factors Verizon considers in setting asset GAAP lives, because such experience is, by definition, backward rather than forward-looking, it can and should carry only limited weight Lacey Decl. ¶ 20.

guidance that the incumbents' financial lives, and not outdated regulatory lives, are the appropriate measure of economic depreciation.^{112/} See *NPRM* ¶ 97.

D. Cost of Capital.

As the Commission has properly recognized, the cost of capital input must fully reflect investors' risk-based expectations in a market characterized by both (1) vigorous inter- and intra-modal competition and (2) regulatory burdens that asymmetrically affect incumbents relative to their competitors.^{113/} These two principles are critical to giving both competitive *and* incumbent LECs the correct investment signals. As the Commission recognized in its *Triennial Review Order*, "establishing UNE prices based on an unreasonably low cost of capital would discourage competitive LECs from investing in their own facilities and thus slow the development of facilities-based competition." *Triennial Review Order* ¶ 682 (also quoted in *NPRM* ¶ 83). And an unreasonably low cost of capital would prevent incumbent LECs from attracting financing for network upgrades and thus slow the pace of technological innovation in the telecommunications sector.

Unlike other UNE cost inputs, the forward-looking capital costs of incumbent UNE providers in competitive markets cannot be directly determined from the incumbent's own data.

^{112/} As the Commission recognized, setting accurate lives does not necessarily ensure proper recovery of the resulting depreciation expense if UNE rates are reset and reduced every few years at intervals far shorter than the depreciable lives of most assets. *NPRM* ¶¶ 102-08; see also OSP Working Paper. Accelerated depreciation, if carefully designed, could be an appropriate mechanism to ensure that incumbents actually recover their forward-looking depreciation expense. Another approach would be, as the Commission recognizes, the use of shorter asset lives as a proxy for changing investment costs. *NPRM* ¶ 108.

^{113/} See *Verizon Reply Br.* at *12 n.8 (stating that "an appropriate cost of capital determination takes into account *not only existing competitive risk*, as the FCC explicitly recognized (see *Local Competition Order* at 15856 ¶ 702, J.A. 395-396), *but also risks associated with the regulatory regime to which a firm is subject*") (emphasis added); see also *NPRM* ¶¶ 82-84; *Triennial Review Order* ¶¶ 680-84, 689.

This is because neither the incumbent nor their parent Regional Bell Holding Company is solely engaged in providing UNEs. However, the competitive cost of capital can be determined using objective, verifiable data by looking to the average cost of capital for the Standard & Poor (“S&P”) Industrials — a proxy group of companies with comparable competitive risks. Even these companies, however, are not subject to the additional, well-known regulatory risks imposed by the UNE regime, which, as the Commission has acknowledged, must be accounted for in the cost of capital. In particular, UNE providers bear the risk that CLECs will cancel their short term UNE leases at any time, a risk that can be quantified using a well accepted methodology employed by the financial markets. In addition, UNE providers bear the entire risk of making sunk investments, while CLECs have the option to wait to see how market conditions evolve before investing.

To “quantify the various components of risk that should be reflected in a company’s cost of capital,” *NPRM* ¶ 85, Verizon proposes a concrete, transparent, and verifiable two-stage process for estimating the cost of capital in setting UNE prices. The first stage requires calculating the cost of capital in a competitive market of average risk, using data about the S&P sample group. The second stage entails adjusting the cost of capital figure for ordinary competitive markets to reflect the relevant regulatory risks.

1. Risks of a Competitive Market.

The Commission concluded in the *Triennial Review Order* that the TELRIC cost of capital should reflect incumbents’ risks in a market with full-blown, facilities-based competition,^{114/} rather than, as some CLECs had advocated, the risks in a market with limited

^{114/} *NPRM* ¶ 83 (“[C]ost of capital should reflect the risks of a competitive market, . . . [including] the risk of losing customers to other facilities-based carriers”) (paraphrasing *Triennial Review Order* ¶¶ 680-684).

competition.^{115/} That is, as the Commission recognizes in the *NPRM*, “state commissions must use a consistent set of assumptions [about market competition] when they calculate the three components of rates (operating expenses, cost of capital, and depreciation expense).” *NPRM* ¶ 84. Any other approach “would reduce artificially the value of the incumbent LEC network [assumed by the pricing methodology] and send improper pricing signals to competitors.” *Triennial Review Order* ¶ 682

The Commission asks whether it should continue to use a competitive cost of capital if it reforms TELRIC so that network assumptions more closely reflect attributes of the incumbent’s existing network rather than the hypothetical network assumed under the current rules. *NPRM* ¶ 84. The short answer is that it should. As the Commission recognized in the *Triennial Review Order*, because UNE prices are intended to “replicate pricing in a competitive market, and prices in a competitive market would reflect the risks of a competitive market,” the costs of capital should reflect the risks of competing in such a market. *Triennial Review Order* ¶ 681. This approach is also consistent with the fact that, as discussed above, incumbents already face extensive intramodal and intermodal competition, and that competition will only increase going forward. *See* Declaration of James H. Vander Weide, Exh. 5 ¶ 11 (noting that relevant competitive risk must be measured on a forward-looking basis over the life of the network) It is therefore necessary to use a competitive cost of capital.

As Dr. Shelanski and Dr. Vander Weide explain, a cost of capital in the *theoretical* TELRIC world would be well *above* the normal competitive cost of capital because it would

^{115/} *Triennial Review Order* ¶ 681 (rejecting AT&T’s view that cost of capital should be based on market risk in a period of allegedly “limited competition for network elements at the time,” rather than market risk under the conditions of “future competition” that TELRIC was intended to bring about).

need to reflect the risks of investing in a unreal, hypercompetitive market where carriers set prices as though technologies were instantaneously and ubiquitously deployed. *See* Shelanski Decl. ¶¶ 14, 39; Vander Weide Decl. ¶¶ 29-30. The reason is simply that investors would be understandably reluctant — perhaps unwilling at any price — to invest in a telecommunications company that was forced to price as though it rebuilt its network soup to nuts every few years. Thus, while reform of the pricing rules would mean that the cost of capital would no longer have to reflect the additional risks posed by TELRIC's current extreme assumptions, it still would have to reflect the risks of a competitive market (as well as the regulatory risks posed by the UNE regime itself). *See* Shelanski Decl. ¶ 39; Vander Weide Decl. ¶ 40.

As noted above, the forward-looking capital costs of incumbent UNE providers in competitive markets are not directly observable in the marketplace. Instead, every real-world company that provides UNEs simultaneously deploys its capital in a variety of business lines ranging from wireless to broadband services. For this reason, the regulator's only option is to estimate the forward-looking cost of capital based on market data for a proxy group of companies with comparable risk. Vander Weide Decl. ¶ 40. As Dr. Vander Weide explains, the appropriate proxy group for this purpose are the S&P Industrials, which are a quintessential group of companies operating in competitive markets. *Id.* ¶¶ 41-42. Some CLECs have suggested that the small group of telecommunications holding companies that own ILEC subsidiaries is a more appropriate reference group for the competitive cost of capital than the S&P Industrials, but, as Dr. Vander Weide explains, this group would be inappropriate. Vander Weide Decl. ¶ 44. Among other things, the Bell holding companies are simply too small a sample for the purpose of reliably estimating the cost of equity, since, as economists recognize, the cost of equity should be measured from a large sample to eliminate random fluctuations due

to the particular characteristics of an individual company. In addition, while the Bell holding companies are undergoing substantial industry restructuring that should increase their costs of equity, the traditional cost of equity models cannot reliably measure the cost of equity in such an uncertain environment. *See* Vander Weide Decl. ¶¶ 44-47.

Using the S&P Industrials as a proxy group, the competitive cost of capital can be determined in four straightforward and verifiable subparts. First, the regulator must estimate the target market capital structure as a ratio between debt and equity financing. To do so, regulators should look to average debt/equity ratios measured with reference to current market prices of competitive firms such as the S&P Industrials. Vander Weide Decl. ¶ 71. Examination of the market-based capital structures of such firms from 1996 to 2000 shows that on average they had equity percentages averaging over 80 percent for the period.^{116/} Some CLECs have in the past proposed looking at least in part to “book value” capital structures, which reflect ILECs’ historic costs of raising debt and equity. But book value structures are entirely irrelevant to what investors would demand if ILECs were to seek capital today and are wholly inconsistent with the Commission’s commitment to a forward-looking methodology. Vander Weide Decl. ¶¶ 72-73.

Second, the regulator must measure the cost of debt. A reasonable proxy is the yield to maturity on Moody’s A-rated industrial bonds for the most recent period for which data is available plus flotation costs. Vander Weide Decl. ¶ 48. As Dr. Vander Weide explains, this approach properly uses long-term interest rates rather than, as CLECs have recommended, short-term rates, since, among other things, short-term debt is not generally used to finance investments in long-term network assets. Vander Weide Decl. ¶¶ 49-50.

^{116/} Vander Weide Decl. ¶ 74. The regional Bell holding companies likewise had equity percentages that averaged above 80 percent during this same time period. *Id.*

Third, the regulator must estimate the cost of equity. As Dr. Vander Weide explains, the cost of equity should be measured by applying the widely-accepted single stage Discounted Cash Flow model to data for the S&P Industrials. Vander Weide Decl. ¶¶ 51-58. This approach yields results consistent with investor expectations. By contrast, other models proposed by CLECs, such as the three-stage DCF model and the CAPM, produce illogical results and/or are too sensitive to variables such as changing interest rates. *Id.* ¶¶ 59-67. For example, the three-stage DCF model typically proposed by CLECs such as AT&T and MCI can yield the untenable result that higher risk companies have a lower cost of equity than lower risk companies. *Id.* ¶ 60.

Finally, the regulator must calculate an average cost of capital by averaging the estimated debt and equity costs, weighted according to the estimated proportions of debt and equity financing. For instance, a firm with 75 percent equity costing 14.75 percent and 25 percent debt costing 7.55 percent would have a weighted cost of capital equal to $((.75 * 14.75) + .25 * 7.55)$, or 12.95 percent.

2. Regulatory Risks Inherent in Providing UNEs.

As the Commission explained to the Supreme Court, “an appropriate cost of capital determination takes into account *not only existing competitive risk . . . but also risks associated with the regulatory regime to which a firm is subject.*” *Verizon Reply Br.* at 12 n.8 (emphasis added). Similarly, the Commission expressly acknowledged in its *Triennial Review Order* that the UNE cost of capital must take into account “any unique risks (above and beyond . . . competitive risks . . .) associated with new services that might be provided over certain types of facilities.” *Triennial Review Order* ¶¶ 680-81, 683. The obvious corollary is that the cost of capital must take into account the risks inherent in the provision of UNEs themselves.

In particular, UNE prices should take into account two sets of regulatory risks. First, as the *NPRM* explains, regulators must consider ILECs’ specific exposure to the “risk of stranded

investment . . . in an industry in which costs generally are decreasing” and where “month-to-month” contracts with CLECs are the norm. *NPRM* ¶¶ 86-87. The risks of providing UNEs are equivalent to the risks of providing cancelable leases, such as short-term car rentals. CLECs are able to terminate their use of a particular element or of UNEs generally at any time, and instead move to alternative facilities or technologies. And even where CLECs do not cancel themselves entirely, the fact that UNE rates may be re-set every few years creates its own risk of underrecovery: CLECs are able to “cancel” their existing UNE leases periodically and renew at the new lower rates. *Vander Weide Decl.* ¶¶ 15-16.

Thus, the provision of UNEs, like the provision of rental cars, involves a significant risk that the lessee will lease the asset for less time than expected, or, in the case of UNEs, at lower rates than expected. Moreover, in the case of UNEs, the risk is even greater than in the usual cancelable lease context because the assets in question are long-lived and the investment is sunk. As a result, if CLECs cancel their UNE leases and either renew at lower rates or switch to alternative facilities or technologies, the ILEC will necessarily recover less than its costs. And, unlike a real-world competitive venture, the ILEC has no way to balance out that risk by charging higher rates (e.g., for short term leases) or exceeding demand forecasts. As a result, absent adjustment for these additional risks, the “expected value” of a UNE provider’s return will always be lower than its cost of capital. *See Vander Weide Decl.* ¶¶ 20-21; *Pindyck Decl.* ¶¶ 19-24.

Financial markets already value such risks in the context of cancelable operating leases, recognizing that these involve significantly more risk than a typical long-term lease because the lessor bears the risk that its asset may sit idle or that rates may go down. As a result, cancelable operating lease payments typically account not only for the investment and operating expenses,

but also for the value of the option to cancel the lease. Put another way, the daily cost to rent a car from Hertz is much higher than the cost per day of a long-term car lease. Of course, as noted, the risk that incumbent telephone companies face is significantly higher than that of a rental car agency, since the incumbent cannot move its large, fixed-cost assets in response to shifts in demand. In other words, while Hertz can move cars from one state to another if demand patterns change, Verizon cannot redeploy its loops in response to shifting demand. *See* Vander Weide Decl. ¶ 19; Pindyck Decl. ¶ 12.

In order to ensure that UNE rates reflect these risks at least to some extent, regulators should adopt a risk premium based on the commonly accepted methodology for valuing cancelable operating leases. As Dr. Vander Weide explains, the calculation determines the market value of the CLECs' option to cancel their UNE contracts (and move to alternatives or potentially retake the same UNE at a lower rate), based on the pricing methods financial firms use to value similar options in the financial markets. Vander Weide Decl. ¶¶ 22-23, Att. C. This value is then used to calculate the amount required to compensate ILECs for the risks they incur because CLECs can cancel their contracts on a monthly basis.

Second, as Professor Pindyck explains, the regulatory regime provides CLECs with an additional option value because, while incumbents must make irreversible (i.e., sunk) investments in facilities, CLECs have the option simply to lease UNEs and see how market and technology conditions evolve: they can make a later choice as to whether to invest in their own facilities, continue leasing, or simply exit the market altogether. Pindyck Decl. ¶¶ 19-22. Thus, unlike the ILEC that actually makes the capital investment, the CLEC does not bear the burden of the uncertainty — it benefits on the upside, while avoiding the downside. And the ILEC's risk in making these sunk cost investments is in addition to the risk of cancellation described

above — for example, while a car rental agency bears the risk of short term operating leases, it does not bear the risk of sunk cost investments, since it can always sell its cars in the secondary market. UNE pricing must account for the ILEC's sunk cost risk or the ILEC will subsidize the CLEC by bearing the entire cost of downside risk exposure, thereby discouraging capital investment. *See* Pindyck Decl. ¶¶ 15-18. Professor Pindyck explains that it is possible to quantify a risk premium to account for this option value, and how to do so. *See id.* ¶¶ 33-38, Att. A.

E. Non-Recurring Costs.

The Commission has consistently recognized that ILECs are entitled to compensation for the out-of-pocket, non-recurring costs they incur in provisioning UNEs to CLECs. However, under the current TELRIC rules, CLECs have often argued that instead of basing non-recurring rates on the non-recurring costs the ILEC actually incurs, non-recurring rates should be reduced to account for hypothetical network efficiencies and network architectures or constructs that do not currently, and may never, exist. In addition, CLECs have argued that ILECs should recover non-recurring costs through *recurring* rates. These arguments have often resulted in rates that not only prevent ILECs from recovering their actual forward-looking, non-recurring costs, but also send incorrect economic signals to CLECs concerning the cost of entry and customer acquisition — both results that are contrary to the Commission's explicit goals for UNE pricing. *NPRM* ¶ 38. Moreover, such recovery forces more stable CLECs who experience less churn to subsidize less stable CLECs whose customers experience a much greater level of churn or other non-recurring activity.

In reforming TELRIC, therefore, the Commission should extend its tentative conclusion that the UNE pricing rules should more closely account for the real-world attributes of the incumbent's network to non-recurring costs. *NPRM* ¶¶ 52, 117. As the Commission properly

notes, “network assumptions that depart significantly from an incumbent LEC’s existing network might preclude recovery of the cost of non-recurring activities that would be required in establishing a competitive market.” *NPRM* ¶ 117. To avoid this result, the Commission should clarify that the proper measure for non-recurring costs is the actual out-of-pocket costs ILECs incur to make UNEs available to CLECs. In addition, the Commission should clarify that non-recurring costs should be recovered through non-recurring charges paid by CLECs.

1. Right to Recover ILEC’s Out-of-Pocket Costs.

The most appropriate measure of non-recurring costs is the out-of-pocket costs ILECs will incur in making UNEs available to CLECs. Basing non-recurring rates on the actual non-recurring activities in which ILECs engage to provision CLEC orders would both compensate ILECs for their out-of-pocket costs and send the correct economic signals. *See Shelanski Decl.* ¶ 55. If CLECs are not required to bear the real and unavoidable costs the ILECs incur in provisioning UNEs, primarily for labor, then CLECs will inevitably make inefficient entry decisions, such as relying on a UNE instead of an alternative facility. *Id.* Furthermore, as with recurring rates, basing non-recurring rates on the ILEC’s real-world network would eliminate much of the speculation that has characterized the application of TELRIC in some state proceedings.

Incumbents, as the Commission has long recognized, are entitled to recover the non-recurring costs they incur in providing UNEs: “LECs should . . . recover through an NRC their full one-time costs of providing, terminating or modifying a[] . . . service. This is consistent with our policies encouraging the recovery of costs from cost causers and would reduce the subsidy of short-term users by longer term customers.”^{117/} As the Commission has explained, non-recurring

^{117/} Memorandum Opinion and Order, *Investigation of Interstate Access Tariff Non-*

tasks “clearly generate costs for the LECs. To the extent that customers seek to avoid such costs, they seek a subsidy. The creation of such a subsidy would be at odds with our stated goal of achieving cost-based . . . rates.”^{118/} Thus, the Commission properly has concluded that CLECs should be “required to bear the cost” of “modifications to incumbent LEC facilities to the extent necessary to accommodate interconnection or access to network elements.” *Local Competition Order* at 15602-03 ¶¶ 198-99. And the Commission has expressly rejected an interpretation of even the current TELRIC rules that would assume away costs, such as loop conditioning, that would not be incurred in a hypothetical network, but unquestionably must be performed in the real world.^{119/}

Accordingly, non-recurring rates should be based on the costs (primarily labor) that the ILEC will incur. In particular, as Dr. Shelanski explains, the appropriate approach to calculate the relevant non-recurring costs is to (1) determine what tasks an ILEC may perform to process and provision an order for a particular element or service, (2) measure how much time will actually be needed on average to perform each of those tasks (taking into account the probability that the task will in fact need to be performed with respect to a particular order), (3) multiply each such time by the applicable labor rate, (4) add together the resulting costs for the tasks

Recurring Charges, 2 FCC Rcd 3498, 3501-02 ¶¶ 32-33 (1987) (“*Non-Recurring Charges Order*”)

^{118/} Memorandum Opinion and Order, *Investigation of Special Access Tariffs of Local Exchange Carriers*, CC Docket No. 85-166, 1986 FCC LEXIS 4103, at *13 (Jan. 24, 1986).

^{119/} See *Local Competition Order* at 15692 ¶ 382; Third Report and Order and Fourth Further Notice of Proposed Rulemaking, *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, 15 FCC Rcd 3696, 3784 ¶ 193 (1999) (“*UNE Remand Order*”); see also *Verizon Reply Br.* at *9 n.7 (“[The] [] suggestion . . . that TELRIC authorizes regulators to require incumbents to modify, ‘for free,’ loops to facilitate certain advanced services ignores express FCC directions to the contrary.”) (citations omitted).

relevant to a particular element, and (5) then add the appropriate assignment of joint common costs and other expenditures associated with these activities. Shelanski Decl. ¶ 55.

Some CLECs have argued that the ILEC's non-recurring costs could theoretically be reduced by hypothetical technological network developments, and that, because these hypothetical technological developments could make the ILEC more efficient in the future, the rates for non-recurring costs should be significantly lowered. This argument is unsound. It would simply be incorrect to ignore some of the labor costs ILECs incur today because they ultimately might be reduced or eliminated at some hypothetical future time. For example, in some cases ILECs have not been permitted to recover their costs for qualifying and conditioning a loop so that a CLEC can use it to provide DSL on the theory that, in some ideal hypothetical network, such activities might not be necessary. That makes no sense. Where an ILEC does incur a cost — for example, paying workers for the time needed to condition the loop — the only real question is whether the ILEC or the CLEC should bear the cost. Because the CLEC causes the cost, which is incurred on its behalf, the CLEC should without question pay the cost. To insulate the CLEC from this cost would send improper economic signals: If the CLEC does not bear the full costs of providing a service (e.g., DSL) to a customer, then it inevitably will make inefficient entry decisions by, for example, relying on a UNE loop to provide DSL instead of an alternative facility or technology. *See* Shelanski Decl. ¶ 56.

Moreover, using the ILEC's out-of-pocket, non-recurring costs as the basis for non-recurring rates is consistent with the Commission's goal of approximating the rates that would be generated in a real-world, competitive telecommunications market. *See* Shelanski Decl. ¶ 58. There is ample evidence that ILECs' non-recurring costs today are efficient. As with recurring costs, the ILECs have strong incentives to reduce their non-recurring costs as much as possible.

First, the overwhelming majority of non-recurring activities for UNEs involve systems and processes that are similar (or identical) to those the incumbents use for their retail services. There can be no question that price caps and competitive pressures have created strong incentives for ILECs to design and perform these necessary activities efficiently. For example, incumbents must make field dispatches to provision some orders for both their retail and wholesale customers, and they have strong reason both to minimize the frequency with which those dispatches must be performed and the time needed to perform them. *Id.*

Second, non-recurring tasks that are exclusively performed with respect to wholesale services typically have been requested and developed in collaborative proceedings and have been subject to intensive review, and thus have been designed consistent with CLEC and state commission input. *See Shelanski Decl.* ¶ 58. And performance measures continue to pressure ILECs to automate their non-recurring tasks as much as possible, pushing non-recurring costs down as such automation becomes possible. As a result, a number of wholesale-only tasks — for example, those involving ordering interfaces — tend to be more, not less, automated than tasks that also are performed at retail. Non-recurring tasks that have not been automated are either those that are performed infrequently (which would make the cost of developing automation greater than the cost of performing the task manually), are complex (making it unduly expensive to develop automated processes), or that simply cannot be automated.

Third, once a state has set non-recurring rates, ILECs obviously have every reason to be as efficient as possible during the time the rates are in effect, since inefficient processes would only increase the ILECs' costs without any corresponding increase in their revenues (or CLECs' costs). *See Shelanski Decl.* ¶ 59. The current UNE rates in many states combined with stringent performance measures, such as significant fines for non-performance, have given ILECs every

incentive to make their wholesale operations the lowest cost possible; this is especially true given that ILECs have typically been forced to perform non-recurring tasks at non-recurring rates that are below cost. In these circumstances, ILECs clearly have had every incentive to make their non-recurring costs as low as possible.

Finally, in addition to its other benefits, basing non-recurring rates on the ILEC's actual non-recurring costs would exponentially increase the transparency and verifiability of these rates. The Commission expressed particular concern that "testimony . . . [on issues related to non-recurring costs] in state TELRIC proceedings typically relies primarily, if not exclusively, upon the subjective opinions of panels of subject matter experts." *NPRM* ¶ 119. The ILEC's actual costs are not a matter of the subjective opinion of subject matter experts. Rather, actual times, the probability a task will be needed, and labor rates are all capable of objective measurement. Relying on these costs would at the very least produce rates that were not the product of a highly subjective, and therefore inherently opaque and unverifiable, rate-making process.

2. Rate Structure for Non-Recurring Costs.

ILECs should also be able to recover non-recurring costs the way they are incurred — through non-recurring charges paid by the carrier, that caused the cost. Although CLECs have argued that ILECs should be required to recover non-recurring costs on a recurring basis because such recovery allegedly lowers entry barriers, the Commission should reject this arguments because it both contravene established Commission precedent and would severely and negatively distort the economic incentives of both ILECs and CLECs. As the Commission has already specifically found, "[l]oad[ing] the unrecovered non-recurring costs into recurring rates" would be "inconsistent with the policies . . . that favor recovering costs from the cost causer," "would

distort the prices paid by . . . customers,” and would create a “subsidy of short-term users by longer term customers.”^{120/}

The Commission has long recognized that non-recurring costs are “the one-time expenses incurred, upon the request of a customer, in installing, moving, rearranging or terminating an access service from the initial receipt of a service order to the point at which service is provided or terminated, as the case may be. . . .” *Non-Recurring Charges Order* at 3501-02 ¶¶ 32-33. As this definition makes clear, non-recurring costs are incurred at the behest of, and to benefit, a specific customer — and in the case of UNEs, a specific CLEC; this is in contrast to the costs related to network assets, which are incurred over time to provide the network as a whole, from which *all* users benefit. Non-recurring costs accordingly are appropriately imposed as a direct, specific non-recurring charge on the specific CLEC that requests — and will benefit immediately from — the non-recurring labor. This is consistent with the Commission’s conclusion that, “as a general rule, . . . incumbent LECs’ rates for interconnection and unbundled elements must recover costs in a manner that reflects the way they are incurred.” *Local Competition Order* at 15874 ¶ 743.

Requiring ILECs to recover non-recurring costs from recurring rates would significantly distort the economic signals sent to both ILECs and CLECs. *See Shelanski Decl.* ¶¶ 60-62. Because the ILEC must pay for non-recurring costs out-of-pocket, the requirement that ILECs recover non-recurring costs on a recurring basis shifts the risk of non-recovery from the CLEC to

^{120/} *Non-Recurring Charges Order* at 3499, 3501-02 ¶¶ 12, 32-33, 35; *see also Order, MCI Telecommunications Corp. Application for Review of the Ameritech Operating Companies, Bell Atlantic Telephone Cos., BellSouth Telecommunications, Inc., Cincinnati Bell Telephone Co., GTE Service Corp., the NYNEX Telephone Cos., Pacific Bell, Rochester Telephone Corp., United Telephone and Central Telephone Cos., and U S WEST Communications*, 12 FCC Rcd 16565, 16571 ¶ 12 (1997); *Local Competition Order* at 15874 ¶ 743.

the ILEC. *Id.* at ¶ 60. This shift would have numerous negative effects. First, it would force the ILEC to act as the CLECs' banker. To require the ILEC to pay for non-recurring costs caused by CLECs out-of-pocket while allowing the ILEC to recover that cost only through periodic payment effectively requires the ILEC to extend credit to CLECs. *Id.* But, as the Commission has acknowledged, CLECs should obtain their financing from the financial markets, not from the ILEC.^{121/}

Second, as the Commission itself has previously found, such risk shifting would result in a new subsidy that flows from "long term" users of the network — here, the ILECs — to "short term" users — here, the CLECs. *Non-Recurring Charges Order* at 3501-02 ¶¶ 32-33. In other words, if a CLEC orders non-recurring services but goes out of business or its customer disconnects prior to paying the ILEC a sufficient amount through recurring rates to cover the costs of the non-recurring services, the ILEC (as well as CLECs that order UNEs for longer periods of time) must bear these costs, thereby subsidizing the CLEC. *See Shelanski Decl.* ¶ 60. For this very reason, the Commission has consistently acknowledged, "LECs should . . . recover through an NRC their full one-time costs of providing, terminating or modifying a[] . . . service. This is consistent with our policies encouraging the recovery of costs from cost causers and would reduce the subsidy of short-term users by longer term customers." *Non-Recurring Charges Order* at 3501-02 ¶¶ 32-33

Moreover, the risk of ILEC underrecovery if the entire risk burden is shifted to the ILEC is substantial. As the Commission has just recently found, "there is a significant amount of churn . . . among mass market customers." *Triennial Review Order* ¶ 471. Indeed, WorldCom

^{121/} See Second Report and Order, *Local Exchange Carriers' Rates, Terms, and Conditions for Expanded Interconnection through Physical Collocation for Special Access and Switched Transport*, 12 FCC Rcd 18730, 18750 ¶ 33 (1997).

(now MCI) has stated that 50 percent of its new local customers switch carriers within the first *three* months of signing up for service. *See id.* Under a regime in which non-recurring costs were recovered through recurring rates, ILECs and CLECs and their customers would subsidize a substantial portion of MCI's non-recurring costs associated with these customers. In addition, the continued spate of CLEC bankruptcies further increases the risk that ILECs will be unable to recover their non-recurring costs through recurring rates; in the last seven years, 140 CLECs in Verizon's service area have filed for bankruptcy, and more than 50 have gone out of business.

Even aside from the shifting of risk, it is unlikely that the ILEC could fully recover its non-recurring costs through recurring rates. For ILECs to recover their immediate, direct costs through higher recurring charges, such charges would have to be spread across an *estimate* of some measure of forward-looking usage over time. This would require accurate forecasts of the number of CLECs who will eventually order the relevant facilities, the average length of time CLECs will retain the facilities, and the selection of the number of years over which to recover and amortize the expense.

CLECs have contended that requiring ILECs to recover non-recurring costs through recurring rates is justified because some future CLECs (or the incumbent) may benefit from the non-recurring task that the ILEC performs today after the initial CLEC disconnects. *NPRM* ¶ 122. The Commission should reject this contention. That it is *possible* that some future users might benefit from a non-recurring cost performed today is irrelevant. The CLEC, not the ILEC, should bear the risk that there might *not* be future benefits from that service, since it is the CLEC that enjoys the *current* benefit and imposes the upfront cost. Moreover, it is equally possible that a CLEC will benefit from a non-recurring task the ILEC performed for its customer (e.g., if an

ILEC conditioned a loop for its customer, which then decided to take DSL service from the CLEC instead).

If the Commission were nonetheless to obligate the ILECs to bear the inherent risk of underrecovery that is involved in recovering non-recurring costs through recurring rates, those recurring rates would have to include an additional risk premium sufficient to compensate for the added financial risk. *See Shelanski Decl.* ¶ 61. As a result, shifting the recovery of non-recurring costs to recurring rates would result in an increase in recurring rates for all CLECs. Shifting non-recurring costs (and adding the required additional risk premium) to recurring rates also imposes unnecessary costs on competitors that do *not* benefit from the particular non-recurring tasks that their fellow CLECs demand, while subsidizing those carriers that consume the most non-recurring labor. It also would require competing carriers with efficient business plans — as well as the incumbents — to further subsidize the operations of those carriers who do not have sound plans or do not pay their bills. *Id.*

Shifting the risk of underrecovery of non-recurring costs from CLECs to ILECs is also not necessary: CLECs are not disadvantaged by non-recurring charges for the *specific non-recurring* work they request. *See Shelanski Decl.* ¶ 62. Such costs are simply a cost of customer acquisition and doing business. Any competitor in any business (including the ILEC) must bear such up-front costs. As the D.C. Circuit made clear in *USTA v. FCC*, 290 F.3d 415, 427 (D.C. Cir. 2002), the Act is not designed to address “cost disparities that are universal as between new entrants and incumbents in *any* industry” where entry nonetheless occurs. *Id.* (emphasis in original).

In fact, shielding the CLEC from the types of very real costs of doing business in any industry would send skewed economic signals and encourage inefficient entry. *See Shelanski*

Decl. ¶ 62. If the CLEC cannot cover its own, standard, customer acquisition costs from the services it provides to its customers, its entry is not economically rational: It makes no sense to subsidize such a business venture. This will only destabilize a market already facing substantial levels of churn.

3. Particular Non-Recurring Costs.

In the *NPRM*, the Commission addresses two specific non-recurring costs that have been a continuing source of controversy in the state proceedings — disconnection costs and loop conditioning. *NPRM* ¶ 126-130. Both these costs are actual one-time costs that are incurred by the ILEC in connection with providing UNEs to a CLEC; therefore, as discussed above, the ILEC should be able to recover the costs in the way they were incurred — as non-recurring charges paid by the CLEC that requests the activity performed. Any other compensation mechanism would both fail adequately to recover the ILEC's costs and shift the risk of recovery from the CLEC to the ILEC.

a) Disconnect charges.

The Commission should find that incumbents should be able to recover disconnect costs at the time of connection (appropriately discounted for the time value of money). While even the CLECs recognize that incumbents are entitled to recover disconnect costs, they often argue (and state commissions sometimes find) that those costs should be recovered only at the time of the CLEC disconnects service. However, permitting recovery only at the time of disconnection inappropriately shifts the risk of non-recovery to ILECs. Because Verizon has no choice but to provide UNEs to any requesting CLEC, it bears the risk that the CLEC will be unable to pay disconnect costs at the time of disconnection because, for example, it has gone bankrupt. This risk is obviously substantial, as the numerous bankruptcies in the telecommunications industry make apparent. The result is to leave incumbents with a growing bag of uncollectibles that are,

in turn, borne by all wholesale and retail customers, rather than only by the cost causers. There is no reason that these costs should be passed on to those customers who pay all of their bills.

As the Commission notes in the *NPRM*, inclusion of disconnect charges at the time of connection is standard practice in the retail industry, *NPRM* ¶ 127, and there is no reason to treat the wholesale market differently. The Commission is mistaken in its assumption that the disconnect costs that incumbents recover from their retail customers cover the costs of disconnecting service to the *CLEC*. *See id.* Rather, the charges Verizon imposes on its retail customers recover only the costs of connecting and disconnecting that customer's service. The costs of providing service — including connecting and disconnecting that service — are properly recovered from the next customer to use the same facility, whether retail or wholesale. It thus is not “difficult to predict how often disconnect costs will actually be incurred.” *Id.* Every order for service connection also entails a cost for disconnection, because that service eventually will be disconnected.

By discounting the disconnect costs by the present worth of money, ILECs can ensure the proper cost recovery for the costs they will incur in the future. This too is standard retail practice and not unduly complicated. Because there is no risk that the customer will not disconnect service at all, the only risk is that the time value of money or the estimated average life of the loop used to calculate disconnect costs will not be completely accurate. However, because, for example, the estimated life Verizon uses is longer (2.5 years for ordinary loops) than typical *CLEC* customer churn rates, the risk that disconnect costs are overstated is minimal, and certainly lower than the risk incumbents face of not being able to recover their disconnect costs at all.

b) Loop conditioning.

The Commission has previously recognized that it is appropriate for ILECs to charge for loop conditioning if a CLEC requests conditioning that exceeds the incumbent's network design standards (e.g., removal of load coils on loops longer than 18,000 ft.). *See Local Competition Order*, at 15692 ¶ 382; *UNE Remand Order*, 3783-84 ¶¶ 192-193.^{122/} The Commission now simply should uphold its earlier view. Loop conditioning today is a cost that ILECs actually incur on CLECs' behalf; for all the reasons stated above, it would be inappropriate not to require the CLECs to pay the ILECs for such costs. Moreover, and as the Commission has also recognized, such costs should be recovered in a non-recurring charge imposed on the CLEC that requests the activity be performed. *See UNE Remand Order* at 3784 ¶ 194; *New York 271 Order* at 4089 ¶ 254.

^{122/} See also Third Report and Order in CC Docket No. 98-147, Fourth Report and Order in CC Docket No. 96-98, *Deployment of Wireline Services Offering Advanced Telecommunications Capability and Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, 14 FCC Rcd 20912, 20952 ¶ 82, 20954 ¶ 87 (1999); Memorandum Opinion and Order, *Application by Bell Atlantic New York for Authorization Under Section 271 of the Communications Act To Provide In-Region, InterLATA Service in the State of New York*, 15 FCC Rcd 3953, 4091 ¶ 259 (1999) ("New York 271 Order").